Student Name: **Student id:** **Sect#:** **#:**

University of Bahrain College of Information Technology

Department of Computer Science

ITCS242: Assembly Language Programming **Quiz #3: Input/Output Programming**

****

Write Assembly statements to perform the tasks in each of the following questions:

1) Define an array named **QUZ** consisting of 256 signed bytes.

```
quz     sbyte   256 dup (?)
```

2) Fill the array **QUZ** by randomly generating 256 values in the range from **-64** to **+36** inclusively.

```
        call    randomize
        mov     ecx, lengthof quz
        mov     ebx, 0
L2:     mov     eax, 101
        call    randomrange
        sub     eax, 64
        mov     quz [ebx], aL
        inc     ebx
        loop    L2
```

3) Display in **HEXADECIMAL** all values of array **QUZ** as doublewords separated by spaces at the beginning of a new line.

```
call    crlf
Lea     edx, quz
mov     ebx, type quz * 4
mov     ecx, lengthof quz / 4
call    dumpmem
```

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Write Assembly statements to perform the tasks in each of the following questions:

1) Define an array named **NEW** consisting of 120 signed words.

```
new     sword     120 dup (?)
```

2) Fill the array **NEW** by randomly generating 120 values in the range from **-150** to **+100** inclusively.

```
        call    randomize
        mov     ecx, lengthof new
        mov     ebx, 0
L2:     mov     eax, 251
        call    randomrange
        sub     eax, 150
        mov     new[2*ebx], ax
        inc     ebx
        loop    L2
```

3) Display in **HEXADECIMAL** all values of array **NEW** as bytes separated by spaces at the beginning of a new line.

```
call    crlf
Lea     edx, new
mov     ebx, type new / 2
mov     ecx, sizeof new
call    dumpmem
```